PATENT
0879-0273P

IN THE U.S. PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF		BEFORE THE BOARD OF APPEALS	
Atsushi MISAWA		Appeal No.:	
APPL. NO.:	09/663,354	GROUP:	2612
FILED:	September 15, 2000	Examiner:	N. VU
FOR:	DIGITAL CAMERA WITH DETACHABLE MEMORY FOR STORING IMAGE DATA (AS AMENDED)		

APPEAL BRIEF

PATENT
0879-0273P

IN THE U.S. PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF		BEFORE THE BOARD OF APPEALS	
Atsushi MISAWA		Appeal No.:	
APPL. NO.:	09/663,354	GROUP:	2612
FILED:	September 15, 2000	Examiner:	N. VU

FOR: DIGITAL CAMERA WITH DETACHABLE MEMORY FOR STORING IMAGE DATA (AS AMENDED)

TABLE OF CONTENTS

PATENT
0879-0273P

IN THE U.S. PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF		BEFORE THE BOARD OF APPEALS	
Atsushi MISAWA		Appeal No.:	
APPL. NO.:	09/663,354	GROUP:	2612
FILED:	September 15, 2000	Examiner:	N. VU
FOR:	DIGITAL CAMERA WITH DETACHABLE MEMORY FOR STORING IMAGE DATA (AS AMENDED)		

APPEAL BRIEF ON BEHALF OF APPELLANT: ATSUSHI MISAWA

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

February 10, 2004

Sir:

I. REAL PARTY IN INTEREST

The real party in interest for this application is the Assignee, FUJI PHOTO FILM CO., LTD., 210, Nakanuma, Minami-Ashigara-shi, Kanagawa, JAPAN.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences pending with respect to the subject matter of the present application.

III. STATUS OF CLAIMS

Claims 6-15 remain pending. Claims 6 and 14-15 are independent. No claims have been allowed.

IV. STATUS OF AMENDMENTS

No amendments have been presented after the Final Rejection.

V. SUMMARY OF THE INVENTION

The invention of the subject application is a digital camera, which captures images and stores the images in a built-in memory. The digital camera further includes the ability receive a detachable memory card for storing image data. The detachable memory card may be received in a card slot located on the camera body at a connector for connecting with the camera, which connector is arranged at an internal end of the card slot. The detachable memory card has a larger capacity than the built-in memory. As the camera has the ability to store images in the built-in memory, there is no need to use a memory card during photographing. As such, the size of the camera is not restrained by the size of the memory card. The built-in memory may be transferred to the memory card when the memory card is inserted into the camera. [Specification, page 2, line 17 through page 3, line 9]

The digital camera further provides for detecting that the connector connects with an external memory such as a memory card and memory control means for transferring the image data from the built-in memory to the external

memory (the detachable memory card). Thus, when the detecting means detects that the connector connects with the external or detachable memory card, the memory control means transfers the image data stored in the built-in memory to the detachable memory card and initializes the built-in memory to allow new capturing. The transfer of the image data and the initialization of the built-in memory may be performed automatically upon detection of the connection of the detachable memory card. [Specification, page 3, lines 11 through 18; lines 24 through 25.]

As shown in Fig. 2, a detachable memory card 12 has been inserted into the digital camera 10 via card slot 14 and receives a part of the memory card 12. Part of the memory card, upon connection, is external from the digital camera. [Specification, page 5, lines 1 through 4] During the photographing, the memory card 12 is not connected in camera 10. Image data, which is captured during photographing is stored in a built-in memory. When the built-in memory is filled with the image data, the memory card 12 is connected to the connector 16 via the card slot 14 so that image data can be transferred from the built-in memory to the memory card 12. [Specification, page 5, lines 10 through 16]

The system control circuit 46 is able to detect whether the card connector 16 has connected with the memory card 12 or not, for example, according to information from a specific terminal pin of the card connector 16. When the system control circuit 46 detects that the card connector 16 connects with the memory card 12, the system control circuit 46 reads out the image

data from the built-ion memory 42 via the memory control circuit 44, and stores the readout image data in the memory card 12 via an interface and a card connector 16. After the transfer of the image data stored in the in the built-in memory 42 is completed, the system control circuit 46 clears the built-in memory 42 and initializes the number of captured images, etc. displayed on the LCD 50, and thus prepares for the capturing of new images. [Specification, page 5, lines 11 through 26]

The above description of the invention has solely been made to comply with the Patent Office's rules for submitting Briefs and should not be considered as limiting the claimed invention.

VI. THE GROUNDS OF REJECTION

The Examiner has rejected claims as follows:

Claims 6, 7, 9, and 13-15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Sasson et al.* (USP 5,016,107) (hereinafter *Sasson*) in view of *Wakui* (USP 5,648,816) (hereinafter *Wakui*); and

Claims 8 and 10-12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Sasson* and *Wakui* and further in view of *Watanabe* (USP 4,877,161) (hereinafter *Watanabe*).

VII. ISSUES ON APPEAL

The issues to be resolved in this application are:

(1) Whether claims 6, 7, 9, and 13-15 are unpatentable under 35 U.S.C. § 103(a) based on the teachings of *Sasson* in view of *Wakui*; and

(2) Whether claims 8 and 10-12 are unpatentable under 35 U.S.C. § 103(a) based on the teachings of *Sasson*, *Wakui* and *Watanabe*.

VIII. GROUPING OF CLAIMS

The claims should be grouped as follows for the purposes of this Appeal:

All claims are separately grouped and argued.

IX. ARGUMENT

A. Issue (1): The *Sasson* and *Wakui* Rejection Under 35 U.S.C. § 103(a)

1. Argument Summary

The Examiner's rejection of claims 6, 7, 9, and 13-15 under 35 U.S.C. § 103(a) as being unpatentable over *Sasson* in view of *Wakui* fails to establish *prima facie* obviousness. Generally, the deficiencies of the rejection are that: (a) the rejection attributes certain claimed features to the primary reference, *Sasson*, and the secondary reference, *Wakui*, that a detailed reading of the reference reveals are not taught therein; (b) when the nature and purpose of image data transfer technique disclosed by *Sasson* is recognized, it is evident that there is no suggestion or motivation in any of the references or in the knowledge generally available to those skill in the art to modify *Sasson* in a manner asserted by the rejection; and (c) by asserting that certain

modifications to the camera of *Sasson* would have been obvious without a proper suggestion or motivation in the applied references or elsewhere to make the asserted modifications, the rejection appears to rely on impermissible hindsight reasoning. Such deficiencies exist for the rejection of each of claims 6, 7, 9, and 13-15.

2. The Legal Requirements of *Prima Facie* Obviousness

To establish *prima facie* obviousness, all claim limitations must be taught or suggested by the prior art and the asserted modification or combination of the prior art must be supported by some teaching, suggestion, or motivation in the applied references or in knowledge generally available to one skilled in the art. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). The prior art must suggest the desirability of the modification in order to establish a *prima facie* case of obviousness. In re Brouwer, 77 F.3d 422, 425, 37 USPQ2d 1663, 1666 (Fed. Cir. 1995). It can also be said that the prior art must collectively suggest or point to the claimed invention to support a finding of obviousness. In re Hedges, 783 F.2d 1038, 1041, 228 USPQ 685, 687 (Fed. Cir. 1986); In re Ehrreich, 590 F.2d 902, 908-909, 200 USPQ 504, 510 (C.C.P.A. 1979).

The teaching or suggestion to make the asserted combination or modification of the primary reference must be found in the prior art and cannot be gleaned from applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). In other words, the use of hindsight to reconstruct the

claimed invention is impermissible. Uniroyal Inc. v. Rudlan-Wiley Corp., 5 USPQ 1434 (Fed. Cir. 1983).

Finally, when considering the differences between the primary reference and the claimed invention, the question for assessing obviousness is not whether the differences themselves would be been obvious, but instead whether the claimed invention as a whole would have been obvious. Stratoflex Inc. v. Aeroquip Corp., 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983).

3. The Rejection Fails to Establish *Prima Facie* Obviousness of Independent Claim 6

(a) The References Fail to Teach All the Elements of the Claimed Invention, Thus Failing to Establish *Prima Facie* Obviousness of Independent Claim 6

Independent claim 6 is directed to a digital camera for capturing images. The digital camera includes a built-in memory for storing a plurality of images in the form of image data, where the built-in memory being provided in a camera body; a detachable memory card for storing image data, said detachable memory card having a larger storage capacity than said built-in memory; an insertion slot for receiving said detachable memory card; detecting means for detecting insertion of said detachable memory card into said insertion slot; and memory control means for automatically transferring the image data from said built-in memory to said detachable memory card upon said detecting means detecting said insertion.

In maintaining the rejection of independent claim 6 based on *Sasson* and *Wakui*, the Final Office Action (Paper 15) asserts on page 4, lines 13-15, that *Sasson* teaches

> ... memory control means (processor 20 and digital signal processor 22) for transferring image data from said built-in memory to said detachable memory card upon detecting the mounting of the memory card (col. 5, line 23 – col. 7 line 16).
>
> Claim 6 differs from *Sasson* in that the claim further requires memory control means for automatically transferring the image data from said built-in memory to said detachable memory card upon said detecting means detecting said insertion. Although *Sasson* fails to teach that the image data stored in the image buffer (18) is automatically transferred to the memory card (24) upon the processor (20) detects the insertion of the memory card, *Sasson* teaches that the image data stored in the image buffer (18) is automatically compressed and transferred to the memory card (24) when the image buffer (18) is full (col. 5 line 38 – col. 7, line 16). However, the limitation is well known in the art as shown in *Wakui* '816.
>
> In the same field of endeavor, in figure 1, *Wakui* '816 teaches a digital camera having a built-in memory (image memory 7) for storing image data, a detachable memory card (31) for storing image data,.... *Wakui* '816 further teaches that the digital image signals stored in the image memory (7) are automatically transferred to the memory card (31) when the memory card (31) is correctly connected to the camera (col. 8 lines 12-20; col. 10 lines 26-64; col. 19 lines 15-27, 58-64).

Appellant disagrees that *Sasson* discloses "memory control means (processor 20 and digital signal processor 22) for transferring image data from said built-in memory to said detachable memory card upon detecting the mount of the memory card" as asserted by the Examiner. Appellant agrees that *Sasson* teaches at col. 6, line 66 through col. 7, line 4 as follows:

> ...memory space, therefore, allocated for each image in the SRAM card 24 can vary from image to image. The processor 22,

> consequently, allocates memory space in the SRAM card 24 after each compression sequence for an image is completed so that the images may be "packed" into the card as a continuum of compressed image data.

However, Appellant maintains that *Sasson* fails to teach or suggest transferring image data from said built-in memory to said detachable memory card upon detecting the mount of the memory card" as asserted by the Examiner.

Appellant further disagrees that *Wakui* discloses "that the digital image signal stored in the image memory (7) are automatically transferred to the memory card (31) when the memory card (31) is correctly connected to the camera" as asserted by the Examiner.

The disclosure of *Wakui* is directed to a still video camera including detachably attachable external memory. The Examiner relies on the teachings of *Wakui* at col. 8, lines 12-20 to cure the deficiencies of the teachings of *Sasson*. At col. 8, lines 12-20, *Wakui* teaches

> When the mode selection switch is actuated, the mode setting command signal, i.e., the record mode setting command signal, the play-back mode setting command signal or the erasure mode setting command signal, is input to the system control circuit 2. Even if the mode selection switch is not actuated, when the IC card memory 31 is inserted in, or withdrawn from, the loading portion 17, any one of the three mode setting command signals is input to the system controller 2.

Wakui provides for a mode selection switch, which allows a user to select from a record mode, a play-back mode, an erasing mode and a copy mode (col. 5, lines 24-25). As noted above, when the IC card is inserted in or withdrawn from the loading portion 17, any one of the mode setting command signals may

be input to the system controller 2. However, there is no teaching or suggestion of digital image signal stored in the image memory (7) being automatically transferred to the memory card (31) when the memory card (31) is correctly connected to the camera as asserted by the Examiner.

The Examiner additionally relies on the teachings of *Wakui* at col. 10, lines 26-64 to cure the deficiencies of the teachings of *Sasson*. At col. 10, lines 26-64, *Wakui* teaches

> 3) "Recording of Data in the IC Memory Card 31"
>
> When the record mode setting command signal is input to the system controller 2 in accordance with the operation of the mode selection switch by an operator, the record mode is set by the system controller 2.
>
> If the terminal of the IC memory card 31 is correctly connected to the terminal of the connector 18, and the remaining storage capacity of the IC memory card 31 is sufficient for the image data of one image, the memory card record mode is set by the system controller 2.
>
> If the release switch is turned ON in the memory card record mode, the exposure operation is carried out for the CCD 3 under predetermined exposure conditions, similar to the recording operation of data in the image flash memory 20 mentioned above. Consequently, electric charges are accumulated in the pixels of the CCD 3 and are successively transferred to the image pickup circuit 4. The signals output from the CCD 3 are processed in the image pickup circuit 4 to obtain analog image signals of the object image. The analog signals are converted by the A/D converter 5 into digital image signals. The digital signals pass through the first data selector 6 and are stored in the image memory 7 at predetermined addresses thereof. The switching operation of the data selector 6 is controlled by the system controller 2. Thereafter, the digital image signals are read from the image memory 7 at the predetermined addresses. The digital image signals thus read are input to the image signal processing circuit 8 to obtain a brightness signal (Y), a red color difference signal (Cr), and a blue color difference signal (Cb).

> The brightness signal (Y), the red color difference signal (Cr) and the blue color difference signal (Cb) are selected by the second data selector 14 and are supplied to the IC memory card control circuit 15. The signals are then recorded in the IC memory of the IC memory card 31 at predetermined addresses thereof by the IC memory card control circuit 15. The switching operation of the second data selector 14 is controlled by the system controller 2.

As such, *Wakui* teaches that upon the setting of the recording mode, when the IC memory card is inserted in the camera, and a photographing operation takes place, the image data is stored on the memory card. However, there is no teaching or suggestion of digital image signal stored in the image memory (7) being automatically transferred to the memory card (31) when the memory card (31) is correctly connected to the camera as asserted by the Examiner.

Finally, the Examiner additionally relies on the teachings of *Wakui* at col. 19, lines 15-27 and 58-64 to cure the deficiencies of the teachings of *Sasson*. At col. 19, lines 15-27 and 58-64, *Wakui* teaches

> (8) Interruption by Insertion of Card
>
> FIG. 16 is a flow chart showing the operations of the system controller 2 to interrupt the main routine when the IC memory card is inserted in the loading portion. The admit IC memory card interrupting operation is performed while steps 112-114 are in operation, namely, while the system controller 2 executes the recording subroutine (FIG. 13) in step 113.
>
> The card insertion interruption operation is performed when the terminal of the IC memory card 31 is connected to the terminal of the connector 18 of the loading portion 17 in the interruption permission mode at which the insertion of the card is permitted to interrupt.
>
> In the interruption operation at step 901, whether the image data is being recorded in the image flash memory 20 is checked. If the image data is being recorded in the image flash memory 20, the

data (inherent data) inherent to the IC memory card is read from the IC memory card 31 by the IC memory card control circuit 15 (step 902).

Thereafter, whether the inserted IC memory card 31 is of a correct type is checked in accordance with the inherent data at step 903. Note that if no inherent data can be read from the IC memory card 31, it is judged that the inserted IC memory card 31 is of a wrong type.

If the correct IC memory card 31 is inserted at step 903, the residual capacity is determined (Step 904) and whether the IC memory card 31 has enough remaining storage capacity is checked (step 905). In this connection, if the storage capacity of the IC memory card 31 is enough to store the image data for at least one image, it is judged that there is a remaining storage capacity in the IC memory card 31, otherwise it is judged that the IC memory card has no remaining storage capacity.

If the IC memory card 31 has a remaining storage capacity at step 905, the recording of the image data in the image flash memory 20 is stopped (step 906), the memory card record mode is set (step 907) and the memory card record mode is indicated in the indicating portion 23 (step 908).

Thereafter, the image data, the recording of which in the image flash memory 20 has been previously stopped at step 906, is recorded in the record area of the IC memory card 41 that is selected to record the image data (step 909).

At step 909, the image data written in the image memory 7 is read therefrom and is subject to the signal processing operation in the image processor 8. The image data is then recorded in the record area of the IC memory card 31 that is selected to record the image data by the IC memory card control circuit 15. Namely, the image data for one image is directly recorded in the IC memory card 31.

As noted above, *Wakui* teaches interrupting a recording operation upon detection of a card insertion operation. As such, during a recording operation, when it is determined that the IC memory card is inserted into the camera, the recording operation from image memory 7, which stores only one image, to

flash memory 20 is stopped and the image data is then recorded on the inserted IC memory card 41.

However, there is no teaching or suggestion of digital image signal stored in the image memory being automatically transferred to the memory card when the memory card is correctly connected to the camera as asserted by the Examiner. *Wakui* merely teaches modifying the recording operation from the flash memory to the IC memory card upon detection of insertion of the memory card.

Thus, since *Sasson,* either alone or in combination with *Wakui,* (assuming these references are combinable, which Appellant does not admit), does not teach "memory control means for automatically transferring the image data from said built-in memory to said detachable memory card upon said detecting means detecting said insertion," as recited in independent claim 6, the Examiner has failed to establish *prima facie* obviousness under 35 U.S.C. § 103. As such, claim 6 is patentable over *Sasson* in view of *Wakui*

Claims 7-13 are allowable for at least the reasons set forth above with regard to claim 6 at least based upon their dependency on claim 6.

(b) The Rejection Fails to Provide Valid Motivation to Combine the References, Thus Failing to Establish *Prima Facie* Obviousness of Independent Claim 6

In asserting her rejection of claim 6, under 35 U.S.C. § 103(a), the Examiner asserts on Page 5, lines 11-16

> ...In light of the teaching from *Wakui* '816 and the desire of *Sasson* to automatically transfer image data from a built-in memory (18) to a memory card (24), it would have been obvious to one skilled in

> the art to modify the digital camera taught in *Sasson* by allowing image data stored in the built-in memory to be automatically transferred to the detachable memory card upon detecting the insertion of the memory card so as to simplify the operation of storing image data in the detachable memory card.

One source for motivation to combine references is the nature of the problem to be resolved. As the Appellant sets forth in the specification, a camera is needed that includes built-in memory whereby images may be captured without the use of a detachable memory card during photographing. This allows the camera to be small in size. Thus, when the detachable memory card is inserted, the images stored in the built-in memory may be automatically transferred to the detachable memory card. There is no evidence of record that others recognized that these problems could be resolved by providing for a built-in memory that is used during photographing operations where image data stored in the built-in memory is automatically transferred to the detachable memory card upon detection of insertion of the card. Thus, no motivation to combine the references can be found by considering the nature of the problem to be resolved.

In considering the second source of motivation to combine the references, it is respectfully submitted that no motivation can be found in the teachings of the prior art. *Sasson* provides for an electronic still camera utilizing image compression and digital storage. *Sasson* teaches image buffer 18 at col. 4 line 60 through col. 5, line 22 as follows:

> One desirable consequence of this architecture is that the processing algorithm employed in the compression and recording section may be selected for quality treatment of the image rather

> than for throughput speed. This, of course, can put a delay between consecutive pictures which may affect the user, depending on the time between photographic events. This is a problem since it is well known and understood in the field of still video recording that a digital still camera should provide a continuous shooting capability for a successive sequence of images. For this reason, the image buffer 18 shown in FIG. 1 provides for storage of a plurality of images, in effect allowing a series of images to "stack up" at video rates. The size of the buffer is established to hold enough consecutive images to cover most picture-taking situations. FIGS. 2A and 2B show the typical functional sequence for a camera having buffer area for three separate images. As each image is captured (line D), the next available buffer area is loaded (line E) and image compression begins (line F). FIG. 2A illustrates a typical situation in which the shutter release (line C) is actuated at spaced times insufficient to load all three buffer areas. In FIG. 2B, the shutter release is continuously held down (line C) and a burst of exposures ensue. The three buffer areas are quickly loaded (line E) and, responsive to a buffer full signal (line H), the control processor 20 interrupts the exposure section 10. No further image is then captured until a buffer is freed. For example, in lines E and F, after the first image is compressed and transferred to the card 24, the first buffer area is freed up and a fourth exposure is made.

As can be seen above, the purpose for providing image buffer 18 is to provide a continuous shooting capability of a successive sequence of images. There is no teaching in *Sasson* that provides for photographing operations to be performed without the memory card in place. Although there are teachings that provide for diagnostics on the status of the memory card, i.e., not connected, full, etc., (col. 5, lines 39-55), there is no indication that the image buffer 18 is to be used as a "built-in memory" for use without the memory card being inserted in the camera. Further, in considering that the purpose of providing for image buffer 18 is to allow for continuous shooing capability of a successive sequence of images, Appellant disagrees that such a modification would have been obvious as the camera of *Sasson* would not operate without

the insertion of the memory card. As such, no motivation can be found in the *Sasson* reference.

Wakui teaches a still video camera including detachably attachable external memory. As depicted in Fig. 9, and its related discussion at col. 13, line 39 through col. 14, line 67, if the system determines that the memory card is not inserted and there is insufficient storage in flash memory (also external memory), no photographing operation may take place. Thus, there is no indication that the image memory 7 is to be used as a "built-in memory" for use without the detachable memory being inserted in the camera. As such, no motivation can be found in the *Wakui* reference.

Thus, as motivation cannot be found in the nature of the problem to be resolved, nor in the teachings of the references, there is insufficient motivation to combine the references as suggested by the Examiner.

(c) The Rejection Incorporates Non-Analogous Art, Thus Failing to Establish a *Prima Facie* Case of Obviousness of Independent Claim 6

There is no teaching or suggestion in either of the references for combining the references as suggested by the Examiner. Thus, in combining the references with no suggestion or motivation in the applied references or elsewhere to do so, the rejection appears to rely on impermissible hindsight reasoning.

As such, Appellant submits that the rejection of claim 6, together with claims dependent thereon, fails to establish *prima facie* obviousness.

4. The Rejection Fails to Establish *Prima Facie* Obviousness of Dependent Claim 7

Claim 7 depends directly from claim 6. Appellant submits that the rejection under 35 U.S.C. § 103 based on the asserted modification of *Sasson* in view of *Wakui* fails to establish *prima facie* obviousness of claim 7 at least for the reasons set forth above concerning claim 6. Appellant also submits that dependent claim 7 is separately patentable, and offer the following additional argument for the invention of claim 7.

As discussed above with regard to claim 6, *Wakui* fails to cure the deficiencies of the teachings of *Sasson* as *Wakui* fails to disclose memory control means for automatically transferring the image data from said built-in memory to said detachable memory card upon said detecting means detecting said insertion. As the Examiner has failed to provide a reference that teaches or suggests "wherein said built-in memory is initialized to allow for new image capturing upon said memory control means automatically transferring said image data," in combination with the elements set forth in claim 6, it is respectfully submitted that the Examiner has failed to establish *prima facie* obviousness under 35 U.S.C. § 103(a). Thus, claim 7 is patentable over *Sasson* in view of *Wakui.*

5. The Rejection Fails to Establish *Prima Facie* Obviousness of Dependent Claim 9

Claim 9 depends directly from claim 6. Appellant submits that the rejection under 35 U.S.C. § 103 based on the asserted modification of *Sasson* in view of *Wakui* fails to establish *prima facie* obviousness of claim 9 at least for

the reasons set forth above concerning claim 6. Appellant also submits that dependent claim 9 is separately patentable, and offer the following additional argument for the invention of claim 9.

In support of the Examiner's rejection of claim 9, the Examiner asserts on page 6 of the outstanding Final Official Action as follows:

> ...*Sasson* '107 teaches said detachable memory card (24) is mainly for attachment when the digital camera is not being used to capture images and normally detached when the digital camera is being used to capture images (col. 2 line 45 – col. 3 line 3; col. 3 line 60 – col. 4 line 38).

As discussed above with regard to claim 6, *Wakui* fails to cure the deficiencies of the teachings of *Sasson* as *Wakui* fails to disclose memory control means for automatically transferring the image data from said built-in memory to said detachable memory card upon said detecting means detecting said insertion. As the Examiner has failed to provide a reference that teaches or suggests "wherein said detachable memory card is mainly for attachment when the digital camera is not being used to capture images and is normally detached when the digital camera is being used to capture images, and the digital camera is usable to capture images when the detachable memory card is detached from and inserted into the insertion slot," in combination with the elements set forth in claim 6, it is respectfully submitted that the Examiner has failed to establish *prima facie* obviousness under 35 U.S.C. § 103(a). Thus, claim 9 is patentable over *Sasson* in view of *Wakui*.

Further, Appellant disagrees that *Sasson* teaches the detachable memory card is mainly for attachment when the digital camera is not being used to

capture images and normally detached when the digital camera is being used to capture images. *Sasson* teaches at col. 2, line 59 through col. 3, line 3 as follows:

> By providing a multi-image input buffer and separating digital processing from input requirements, the digital processor not only has more time to operate on blocks of image signals, in particular transform encoding the blocks of signals, but also obtains such processing advantages without disturbing the "stacking up" of images in the input buffer. The invention further utilizes a removable digital storage means, such as a SRAM memory card, to store the compressed image signals. With 10:1 compression, for example, the byte requirement for a picture can be reduced by a factor of ten and many more images can be stored in the memory card.

As such, *Sasson* teaches merely utilizing multi-image input buffer to perform processing on the blocks of image signals while the detachable memory card is utilized for storage. There is no teaching or suggestion is *Sasson* that the detachable memory card is mainly for attachment when the digital camera is not being used to capture images and normally detached when the digital camera is being used to capture images as asserted by the Examiner.

As the Examiner has failed to provide a reference that teaches or suggests all of the claimed elements, it is respectfully submitted that the Examiner has failed to establish *prima facie* obviousness under 35 103(a). Thus, claim 9 is patentable over *Sasson* in view of *Wakui*.

6. The Rejection Fails to Establish *Prima Facie* Obviousness of Dependent Claim 13

Claim 13 depends directly from claim 6. Appellant submits that the rejection under 35 U.S.C. § 103 based on the asserted modification of *Sasson* in view of *Wakui* fails to establish *prima facie* obviousness of claim 13 at least for the reasons set forth above concerning claim 6. Appellant also submits that dependent claim 13 is separately patentable, and offer the following additional argument for the invention of claim 13.

In support of the Examiner's rejection of claim 13, the Examiner asserts on page 6 of the outstanding Final Official Action as follows:

> *Sasson* '107 teaches said detachable memory card (24) is mainly for attachment when the digital camera is not being used to capture images and normally detached when the digital camera is being used to capture images (col. 2 line 45 – col. 3 line 3; col. 3 line 60 – col. 4 line 38).

As discussed above with regard to claim 6, *Wakui* fails to cure the deficiencies of the teachings of *Sasson* as *Wakui* fails to disclose memory control means for automatically transferring the image data from said built-in memory to said detachable memory card upon said detecting means detecting said insertion. As the Examiner has failed to provide a reference that teaches or suggests "wherein said detachable memory card is mainly for attachment when the digital camera is not being used to capture images and is normally detached when the digital camera is being used to capture images," in combination with the elements set forth in claim 6, the Examiner has failed to

establish *prima facie* obviousness under 35 U.S.C. § 103(a). Thus, claim 13 is patentable over *Sasson* in view of *Wakui*.

Further, Appellant disagrees that *Sasson* teaches the detachable memory card is mainly for attachment when the digital camera is not being used to capture images and normally detached when the digital camera is being used to capture images as set forth above with regard to claim 9. There is no teaching or suggestion is *Sasson* that the detachable memory card is mainly for attachment when the digital camera is not being used to capture images and normally detached when the digital camera is being used to capture images as asserted by the Examiner.

As the Examiner has failed to provide a reference that teaches or suggests all of the claimed elements, it is respectfully submitted that the Examiner has failed to establish *prima facie* obviousness under 35 103(a). Thus, claim 13 is patentable over *Sasson* in view of *Wakui*.

7. The Rejection Fails to Establish *Prima Facie* Obviousness of Independent Claim 14

Independent claim 14 is directed to a digital camera for capturing images. The digital camera includes a built-in memory for storing a plurality of images in the form of image data, where the built-in memory being provided in a camera body; a detachable memory card for storing image data, said detachable memory card having a larger storage capacity than said built-in memory, wherein the digital camera is useable to capture the plurality of images when the detachable memory card is detached from the camera; an

insertion slot for receiving said detachable memory card; a detector for detecting insertion of said detachable memory card into said insertion slot; and a memory controller for automatically transferring the image data from said built-in memory to said detachable memory card upon said detecting means detecting said insertion.

In maintaining the rejection of independent claim 14 based on *Sasson* and *Wakui*, the Final Office Action (Paper 15) asserts on page 6, lines 5-8, as follows:

> ... the subject matter in claims 14 and 15 can be found in claims 6 and 13. Therefore, claims 14 and 15 are analyzed and rejected as previously discussed with respect to claims 6 and 13. It is noted that both *Sasson* '107 and *Wakui* '816 teach that the detachable memory card has a larger storage capacity than the built-in memory.

As noted above with regard to claim 6, Appellant disagrees that *Sasson* discloses "memory control means (processor 20 and digital signal processor 22) for transferring image data from said built-in memory to said detachable memory card upon detecting the mount of the memory card" as asserted by the Examiner. Appellant further disagrees, as noted above, that *Wakui* discloses "that the digital image signal stored in the image memory (7) are automatically transferred to the memory card (31) when the memory card (31) is correctly connected to the camera" as asserted by the Examiner.

Thus, since *Sasson*, either alone or in combination with *Wakui*, (assuming these references are combinable, which Appellant does not admit), does not teach "a memory controller for automatically transferring the image

data from said built-in memory to said detachable memory card upon said detecting means detecting said insertion," as recited in independent claim 14, together with the other elements set forth in claim 14, the Examiner has failed to establish *prima facie* obviousness under 35 U.S.C. § 103. As such, claim 14 is patentable over *Sasson* in view of *Wakui*.

Appellant submits *Sasson* and *Wakui* are not combinable for the reasons set forth above with regard to claim 6. Further, based upon the Examiner's failure to provide proper motivation, the Examiner's rejection appears to rely on impermissible hindsight. As such, claim 14 is patentable over *Sasson* in view of *Wakui*.

8. The Rejection Fails to Establish *Prima Facie* Obviousness of Independent Claim 15

Independent claim 15 is directed to a digital camera for capturing images. The digital camera includes a built-in memory for storing a plurality of processed images in the form of image data, where the built-in memory being provided in a camera body; a detachable memory card for storing image data, said detachable memory card having a larger storage capacity than said built-in memory, wherein the digital camera is useable to capture the plurality of images when the detachable memory card is detached from the camera; an insertion slot for receiving said detachable memory card; a detector for detecting insertion of said detachable memory card into said insertion slot; and a memory controller for automatically transferring the image data from said

built-in memory to said detachable memory card upon said detecting means detecting said insertion.

In maintaining the rejection of independent claim 15 based on *Sasson* and *Wakui*, the Final Office Action (Paper 15) asserts on page 6, lines 5-8, as follows:

> ... the subject matter in claims 14 and 15 can be found in claims 6 and 13. Therefore, claims 14 and 15 are analyzed and rejected as previously discussed with respect to claims 6 and 13. It is noted that both *Sasson* '107 and *Wakui* '816 teach that the detachable memory card has a larger storage capacity than the built-in memory.

As noted above with regard to claim 6, Appellant disagrees that *Sasson* discloses "memory control means (processor 20 and digital signal processor 22) for transferring image data from said built-in memory to said detachable memory card upon detecting the mount of the memory card" as asserted by the Examiner. Appellant further disagrees, as noted above, that *Wakui* discloses "that the digital image signal stored in the image memory (7) are automatically transferred to the memory card (31) when the memory card (31) is correctly connected to the camera" as asserted by the Examiner.

Thus, since *Sasson,* either alone or in combination with *Wakui,* (assuming these references are combinable, which Appellant does not admit), does not teach "a memory controller for automatically transferring the image data from said built-in memory to said detachable memory card upon said detecting means detecting said insertion," as recited in independent claim 15, together with the other elements set forth in claim 15, the Examiner has failed

to establish *prima facie* obviousness under 35 U.S.C. § 103. As such, claim 15 is patentable over *Sasson* in view of *Wakui*.

Appellant submits *Sasson* and *Wakui* are not combinable for the reasons set forth above with regard to claim 6. Further, based upon the Examiner's failure to provide proper motivation, the Examiner's rejection appears to rely on impermissible hindsight. As such, claim 15 is patentable over *Sasson* in view of *Wakui*.

B. Issue (2): The *Sasson*, *Wakui*, and *Watanabe* Rejection Under 35 U.S.C. § 103(a)

1. Argument Summary

The Examiner's rejection of claims 8 and 10-12 under 35 U.S.C. § 103(a) as being unpatentable over *Sasson* and *Wakui* in view of *Watanabe* fails to establish *prima facie* obviousness. Generally, the deficiencies of the rejection are that: (a) the rejection attributes certain claimed features to the primary reference *Sasson* and the secondary reference *Wakui*, that a detailed reading of the reference reveals are not taught therein; (b) when the nature and purpose of image data transfer technique disclosed by *Sasson* is recognized, it is evident that there is no suggestion or motivation in any of the references or in the knowledge generally available to those skilled in the art to modify *Sasson* in a manner asserted by the rejection; and (c) by asserting that certain modifications to the camera of *Sasson* would have been obvious without a proper suggestion or motivation in the applied references or elsewhere to make the asserted modifications, the rejection appears to rely on impermissible

hindsight reasoning. Such deficiencies exist for the rejection of each of claims 6, 7, 9, and 13-15.

The legal requirements for establishing *prima facie* obviousness are set forth above.

2. The Rejection Fails to Establish *Prima Facie* Obviousness of Dependent Claim 8

Claim 8 depends directly from claim 6. Appellant submits that the rejection under 35 U.S.C. § 103 based on the asserted modification of *Sasson* in view of *Wakui* and *Watanabe* fails to establish *prima facie* obviousness of claim 8 at least for the reasons set forth above concerning claim 6. Appellant also submits that dependent claim 8 is separately patentable, and offer the following additional argument for the invention of claim 8.

In support of the Examiner's rejection of claim 8, the Examiner asserts on page 7 of the outstanding Final Official Action as follows:

> As to claim 8, the claim differs from *Sasson* '107, as modified by *Wakui* '816, in that the claim requires that the camera body in an insertional direction of the said memory card is shorter than said memory card in the insertional direction of said memory card. *Watanabe* shows that the camera body in an insertional direction of said memory card is the same as the memory card in the insertional direction of said memory card. Since it is highly desirable for the memory card to be easily and readily removed from the camera body, it would have been obvious to one skilled in the art to have the memory card shown in *Sasson* '107, *Wakui* '816 and *Watanabe* '161 longer than the camera body.

As discussed above with regard to claim 6, neither *Sasson* nor *Wakui* teach or suggest memory control means for automatically transferring the image data from said built-in memory to said detachable memory card upon

said detecting means detecting said insertion. *Watanabe* further fails to cure the deficiencies of the teachings of *Sasson* as *Watanabe* fails to teach or suggest memory control means for automatically transferring the image data from said built-in memory to said detachable memory card upon said detecting means detecting said insertion (assuming these references are combinable, which Appellant does not admit). Thus, none of the references cited by the Examiner teach or suggest "wherein said camera body, in an insertional direction of said detachable memory card, is shorter than said detachable memory card in the insertional direction of said detachable memory card," as recited in claim 8, in combination with the elements set forth in claim 6.

As such, the Examiner has failed to establish *prima facie* obviousness under 35 U.S.C. § 103(a). Thus, claim 8 is patentable over *Sasson* in view of *Wakui* and *Watanabe*.

3. The Rejection Fails to Establish *Prima Facie* Obviousness of Dependent Claim 10

Claim 10 depends directly from claim 6. Appellant submits that the rejection under 35 U.S.C. § 103 based on the asserted modification of *Sasson* in view of *Wakui* and *Watanabe* fails to establish *prima facie* obviousness of claim 10 at least for the reasons set forth above concerning claim 6. Appellant also submits that dependent claim 10 is separately patentable, and offer the following additional argument for the invention of claim 10.

As discussed above with regard to claim 6, neither *Sasson* nor *Wakui* teach or suggest memory control means for automatically transferring the

image data from said built-in memory to said detachable memory card upon said detecting means detecting said insertion. *Watanabe* further fails to cure the deficiencies of the teachings of *Sasson* as *Watanabe* fails to teach or suggest memory control means for automatically transferring the image data from said built-in memory to said detachable memory card upon said detecting means detecting said insertion. Thus, none of the references cited by the Examiner teach or suggest "wherein when said detachable memory card is inserted into the insertion slot, said teachable memory card is partially exposed so that a user can grasp said detachable memory card by the exposed part to remove said detachable memory card from said camera body," as recited in claim 8, in combination with the elements set forth in claim 6.

As such, the Examiner has failed to establish *prima facie* obviousness under 35 U.S.C. § 103(a). Thus, claim 10 is patentable over *Sasson* in view of *Wakui* and *Watanabe*.

4. The Rejection Fails to Establish *Prima Facie* Obviousness of Dependent Claim 11

Claim 11 depends directly from claim 6. Appellant submits that the rejection under 35 U.S.C. § 103 based on the asserted modification of *Sasson* in view of *Wakui* and *Watanabe* fails to establish *prima facie* obviousness of claim 11 at least for the reasons set forth above concerning claim 6. Appellant also submits that dependent claim 11 is separately patentable, and offer the following additional argument for the invention of claim 11.

As discussed above with regard to claim 6, neither *Sasson* nor *Wakui* teach or suggest memory control means for automatically transferring the image data from said built-in memory to said detachable memory card upon said detecting means detecting said insertion. *Watanabe* further fails to cure the deficiencies of the teachings of *Sasson* as *Watanabe* fails to teach or suggest memory control means for automatically transferring the image data from said built-in memory to said detachable memory card upon said detecting means detecting said insertion. Thus, none of the references cited by the Examiner teach or suggest "wherein when said detachable memory card is inserted into the insertion slot, more than 1/3 of said detachable memory card is exposed in an insertional direction of said detachable memory card," as recited in claim 11, in combination with the elements set forth in claim 6.

As such, the Examiner has failed to establish *prima facie* obviousness under 35 U.S.C. § 103(a). Thus, claim 11 is patentable over *Sasson* in view of *Wakui* and *Watanabe*.

5. The Rejection Fails to Establish *Prima Facie* Obviousness of Dependent Claim 12

Claim 12 depends directly from claim 6. Appellant submits that the rejection under 35 U.S.C. § 103 based on the asserted modification of *Sasson* in view of *Wakui* and *Watanabe* fails to establish *prima facie* obviousness of claim 12 at least for the reasons set forth above concerning claim 6. Appellant also submits that dependent claim 12 is separately patentable, and offer the following additional argument for the invention of claim 12.

As discussed above with regard to claim 6, neither *Sasson* nor *Wakui* teach or suggest memory control means for automatically transferring the image data from said built-in memory to said detachable memory card upon said detecting means detecting said insertion. *Watanabe* further fails to cure the deficiencies of the teachings of *Sasson* as *Watanabe* fails to teach or suggest memory control means for automatically transferring the image data from said built-in memory to said detachable memory card upon said detecting means detecting said insertion. Thus, none of the references cited by the Examiner teach or suggest "wherein when said detachable memory card is inserted into the insertion slot, more than 1/3 of said detachable memory card externally extends from said digital camera," as recited in claim 12, in combination with the elements set forth in claim 6.

As such, the Examiner has failed to establish *prima facie* obviousness under 35 U.S.C. § 103(a). Thus, claim 12 is patentable over *Sasson* in view of *Wakui* and *Watanabe*.

X. CONCLUSION

For the reasons specifically set forth above, the outstanding rejections set forth in the Final Office Action should be reversed.

Respectfully submitted,

BIRCH STEWART KOLASCH & BIRCH LLP

By _____
Michael K. Mutter, Reg. No. 29,680

MKM/CMV/
0879-0273P

P.O. Box 747
Falls Church, VA 22040-0747
(703) 205-8000

Appendix of Claims

6. (Previously Presented) A digital camera for capturing images, comprising:

a built-in memory for storing a plurality of images in the form of image data, said built-in memory being provided in a camera body;

a detachable memory card for storing image data, said detachable memory card having a larger storage capacity than said built-in memory;

an insertion slot for receiving said detachable memory card;

detecting means for detecting insertion of said detachable memory card into said insertion slot; and

memory control means for automatically transferring the image data from said built-in memory to said detachable memory card upon said detecting means detecting said insertion.

7. (Previously Presented) The digital camera of claim 6, wherein said built-in memory is initialized to allow for new image capturing upon said memory control means automatically transferring said image data.

8. (Previously Presented) The digital camera as defined in claim 6, wherein said camera body, in an insertional direction of said detachable memory card, is shorter than said detachable memory card in the insertional direction of said detachable memory card.

9. (Previously Presented) The digital camera of claim 6, wherein said detachable memory card is mainly for attachment when the digital camera is not being used to capture images and is normally detached when the digital camera is being used to capture images, and the digital camera is usable to capture images when the detachable memory card is detached from and inserted into the insertion slot.

10. (Previously Presented) The digital camera of claim 6, wherein when said detachable memory card is inserted into the insertion slot, said detachable memory card is partially exposed so that a user can grasp said detachable memory card by the exposed part to remove said detachable memory card from said camera body.

11. (Previously Presented) The digital camera as defined in claim 6, wherein when said detachable memory card is inserted into the insertion slot, more than 1/3 of said detachable memory card is exposed in an insertional direction of said detachable memory card.

12. (Previously Presented) The digital camera of claim 6, wherein when said detachable memory card is inserted in said insertion slot, more than 1/3 of said detachable memory card externally extends from said digital camera.

13. (Previously Presented) The digital camera of claim 6, wherein said detachable memory card is mainly for attachment when the digital camera is

not being used to capture images and is normally detached when the digital camera is being used to capture images.

14. (Previously Presented) A digital camera for capturing images, comprising:

a built-in memory for storing a plurality of images in the form of image data, said built-in memory being provided in a camera body;

a detachable memory card for storing image data, said detachable memory card having a larger storage capacity than said built-in memory, wherein the digital camera is useable to capture the plurality of images when the detachable memory card is detached from the camera;

an insertion slot for receiving said detachable memory card;

a detector for detecting insertion of said detachable memory card into said insertion slot; and

a memory controller for automatically transferring the image data from said built-in memory to said detachable memory card upon said detector detecting said insertion.

15. (Previously Presented) A digital camera for capturing images, comprising:

a built-in memory for storing a plurality of processed images in the form of image data, said built-in memory being provided in a camera body;

a detachable memory card for storing image data, said detachable memory card having a larger storage capacity than said built-in memory,

wherein the digital camera is useable to capture the plurality of images when the detachable memory card is detached from the camera;

an insertion slot for receiving said detachable memory card;

a detector for detecting insertion of said detachable memory card into said insertion slot; and

a memory controller for automatically transferring the image data from said built-in memory to said detachable memory card upon said detector detecting said insertion.